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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,351	02/10/2004	Warren M. Farnworth	6105US (03-0885.00/US)	3156

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EXAMINER
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KOCH, GEORGE R

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/775,351

Applicant(s)

FARNWORTH, WARREN M.

Examiner

George R. Koch III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
4a) Of the above claim(s) 5-7 and 9-29 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4 and 8 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ushijima (US 5,393,624).

Ushijima discloses system for selectively depositing a material on a previously formed workpiece, comprising a platform (Figure 2, item 10) for supporting the workpiece during a deposition process, a sensing system (Figure 2, items 15, 16, and 507) for measuring an upper surface of the workpiece and a surface level of a material deposited on the upper surface of the workpiece until the surface level of the material corresponds to a specific thickness of the material (see, for example, Figures 10 and 11); and a deposition system (item 13) for depositing the material on the workpiece to the specific thickness as monitored by the sensing system (see Figures 10 and 11).

This sensing system for measuring an upper surface is consider capable of measuring and upper surface *over a semiconductor die including a previous material previously deposited thereon*. This apparatus in Ushijima is considered *capable of* coating any type of substrate, including the claimed *semiconductor die including a previous material previously deposited thereon*.

As to claim 2, Ushijima discloses that the deposition system is a spin-coating deposition system (see Figures 10 and 11).

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As to claim 3, Ushijima discloses that the sensing system includes a sensor (item 15) for both measuring the upper surface of the workpiece (prior to deposition) and for monitoring the surface level of the material deposited on the upper surface of the workpiece (during deposition).

As to claim 8, Ushijima discloses coating a semiconductor wafer (recited, for example, at column 4, line 65).

### ***Claim Rejections - 35 USC § 103***

3. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima as applied to claims 1-3 and 8 above, and further in view of Whitman (US 6,642,155).

As to claim 4, Ushijima discloses measuring the upper surface of the workpiece and the surface level of the deposited material (see rejection of claim 3 above), but does not disclose using separate sensors for each function.

However, Whitman discloses that it is known in measuring the thickness during spin coating operations to utilize multiple sensors. Whitman uses the multiple sensors to track coated and uncoated areas in order to properly coordinate the coating operation (as described in column 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such sensors in order to achieve coordination of the coating operation.

### ***Response to Arguments***

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4. Applicant's arguments filed 8/10/2005 (certificate of mailing dated 8/08/2005) have been fully considered but they are not persuasive.

5. In response to applicant's arguments with respect to the 35 U.S.C. § 102 and 103 rejections (pages 9-12) that the prior art does not suggest a sensing system for measuring an upper surface *over a semiconductor die including a previous material previously deposited thereon*, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, the amendment is merely directed towards the structure of the substrate upon which the claimed apparatus operates upon. This sensing system in Ushijima for measuring an upper surface is consider capable of measuring and upper surface *over a semiconductor die including a previous material previously deposited thereon*. This apparatus in Ushijima is considered *capable* of coating any type of substrate, including the claimed *semiconductor die including a previous material previously deposited thereon*.

### **Conclusion**

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III  
Primary Examiner  
Art Unit 1734

GRK  
10/27/2005